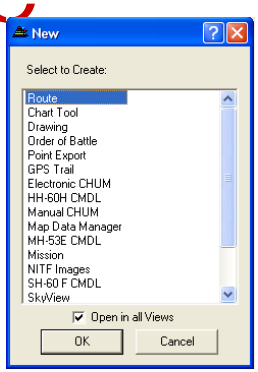
Joint Mission Planning System and Low Level Navigation

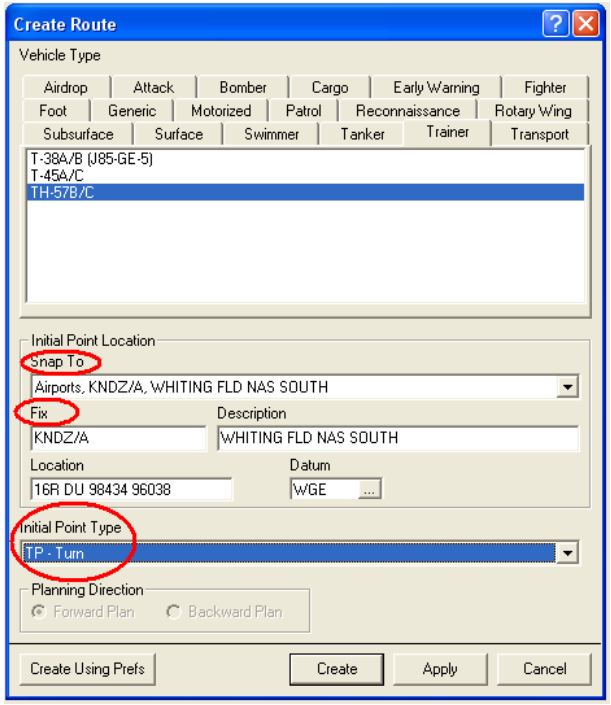
JMPS Program

- Open JMPS desktop shortcut
  - May open to previous flight plan
    - To Close: Click “File” then “Close”
- Check DAFIF currency
  - Select “Tools” Menu
  - “Data Administration”
  - System Health”
  - Up-Date DAFIF under “DAFIF Selection”

Creating a New Route

- Select “File” then “New” then “Route”
- Select “Trainer” tab and “TH-57B/C”
- Snap To: None
  - Will automatically fill with location provided in “Fix”
- Initial Point Type: TP (Turn)
- Fix: KNDZ (Or airport of origin)
- Create





Training Squadron Routes

- For your Low Level, Formation and NVG navigation flights, you will need to plan your **Route WITH Course Rules.**
  - **Include a copy of this route in your SmartPack**

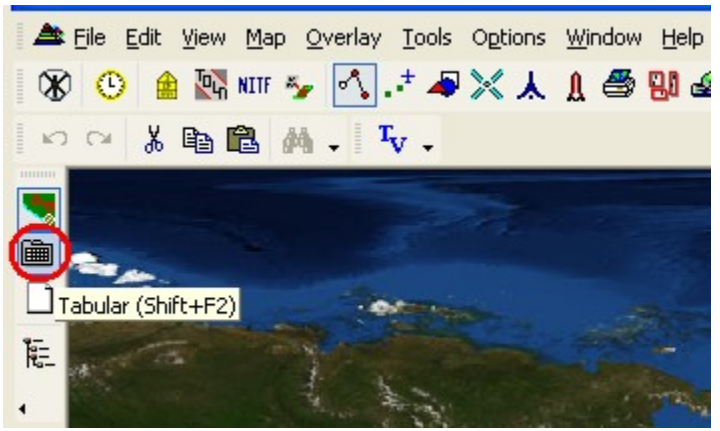
- This is all that is required. Other routes(Route without Course Rules, BINGO Route) do not need to be in SmartPack

Creating a New Route (cont'd)

- Select Tabular display
  - Left column, second icon

    or

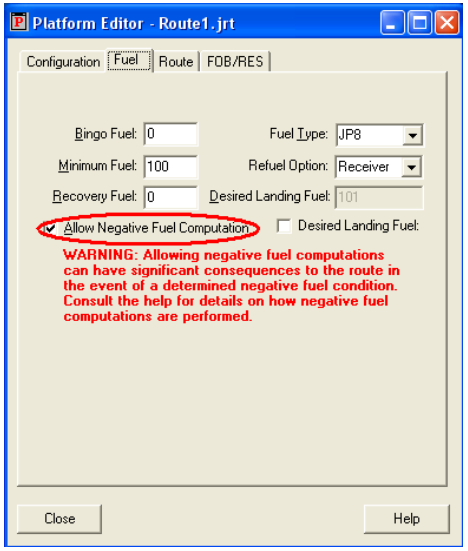
  - Shift + F2

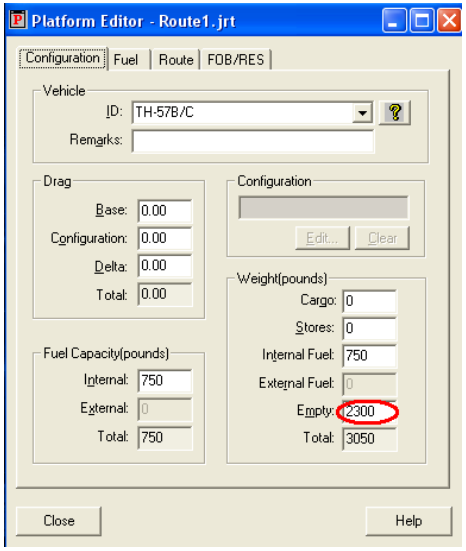


Creating a New Route (cont'd)

- Click on "Platform Editor"
- Fuel Tab
  - "Allow Negative Fuel Computation" = check Configuration tab
  - "Weight- Empty" = 2300

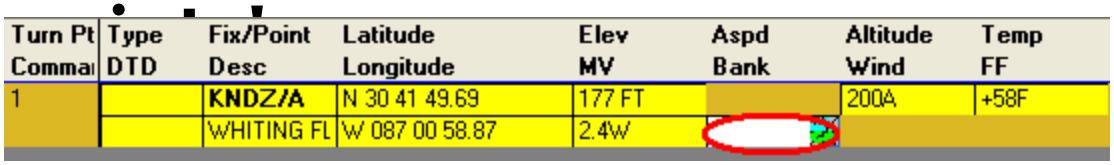
Platform Editor


Platform Editor - Route1.jrt
Configuration
Fuel
Route
FOB/RES
Bingo Fuel: 0
Fuel Type: JP8
Minimum Fuel: 100
Refuel Option: Receiver
Recovery Fuel: 0
Desired Landing Fuel: 101
Allow Negative Fuel Computation
Desired Landing Fuel:
WARNING: Allowing negative fuel computations can have significant consequences to the route in the event of a determined negative fuel condition. Consult the help for details on how negative fuel computations are performed.
Close
Help



Leg Editor

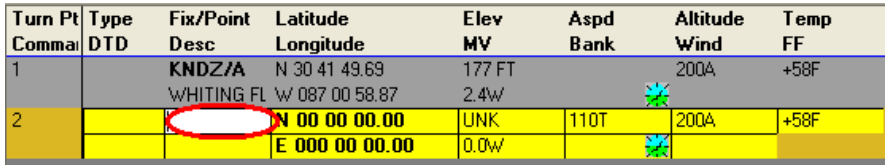
- Permits changing any parameter on segments of the profile
- Individual values may be changed by highlighting a cell on the tabular display and entering data
- General
  - Departure Field- enter ICAO ID
    - Lat. / Long. Is provided in D/M/S format
  - **Bank Angle- Blank = Zero. Do this for all**



Entering Points with the Tabular Editor

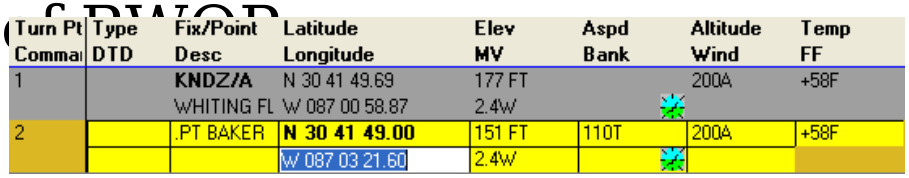
(lat./long. Coordinates)

- Left Click of Arrow Down to enter next point
- Highlight & enter next fix



Turn Pt / Comma	Type / DTD	Fix/Point / Desc	Latitude / Longitude	Elev / MV	Aspd / Bank	Altitude / Wind	Temp / FF
1		KNDZ/A	N 30 41 49.69	177 FT		200A	+58F
		WHITING FL	W 087 00 58.87	2.4W			
2			N 00 00 00.00	UNK	110T	200A	+58F
			E 000 00 00.00	0.0W			

- Coordinates for Course Rules are on A-5 of RWOP
- Coordinates for Low Level routes are on page A-7 of RWOP



Turn Pt / Comma	Type / DTD	Fix/Point / Desc	Latitude / Longitude	Elev / MV	Aspd / Bank	Altitude / Wind	Temp / FF
1		KNDZ/A	N 30 41 49.69	177 FT		200A	+58F
		WHITING FL	W 087 00 58.87	2.4W			
2		.PT BAKER	N 30 41 49.00	151 FT	110T	200A	+58F
			W 087 03 21.60	2.4W			

**JMPS will automatically change a Lat./Long coordinate to the D/M/S format

Entering Points with the Tabular Editor (IFR flight planning)

- Left Click of Arrow Down to next line
- Highlight and enter next fix of NAVAID ID
  - Three letter NAVAID ID NSE
  - Three letter NAVAID ID and Radial/ DME NSE090043
  - Enter airport 4-letter ICAO ID KNSE
  - Five Character Named Fix RLTDE
    - SIDs STARs and Terminal Procedures are not in JMPS

Entering Points with Graphical Editor

- Select Graphical Editor button
  - Top button, left hand side

    or
  - Shift = F2
- Scale the chart as desired using the wheel on the mouse
- To add points, ensure Turn Point tool is selected
- To move map, ensure the Select tool is selected

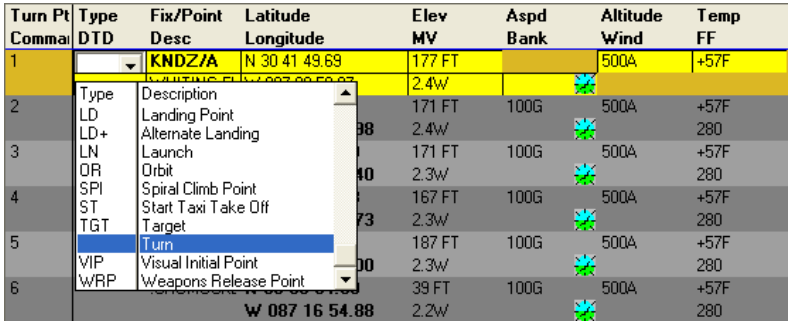
Graphical Editor

Turn Point Tool

Select Tool

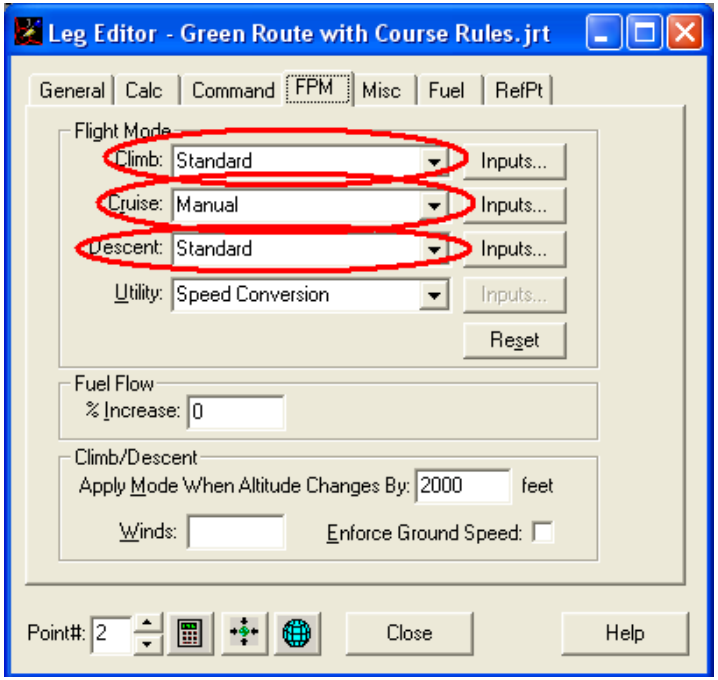
Point Types

- Choose point Type from drop-down menu located on top leftmost box of each point
- Turn
  - Used for most points
- Orbit
  - Used for patter practice at OLFS
  - Time is adjustable
    - Typically 20 minutes



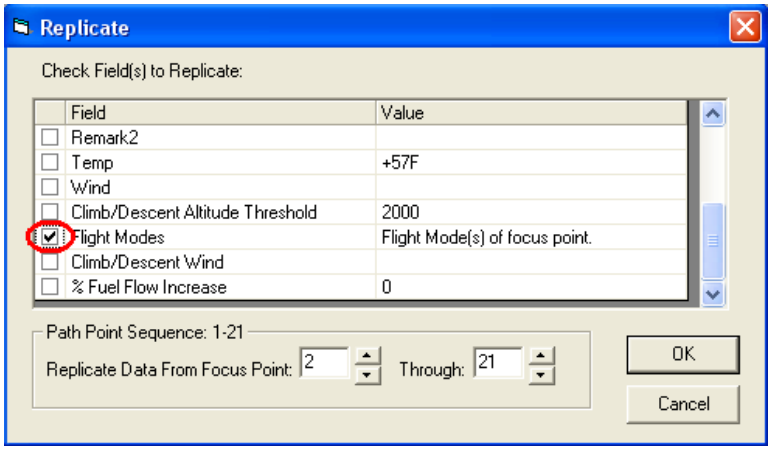
Airspeed Adjustment

- Go to the Tabular Editor (Shift + F2)
- Highlight the second point on route
- Click on the “Route Point” dropdown menu at the top of the screen
- Select “FPM” Tab
- Select “Leg Editor”
  - Climb = Standard
  - Cruise = Manual
  - Descent = Standard
- Close



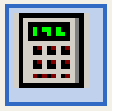
Airspeed Adjustment (cont'd)

- Keep the second point highlighted
- Click on the "Route" dropdown menu at the top of the screen
- Select "Replicate Info"
- Scroll down to "Flight Modes" and check the box
  - This will allow you to adjust airspeed of each leg
    - Course Rules = 100T
    - Low Level Routes = 90G
    - Formation Routes =100G
- Select all points and "OK"



Fuel Calculations

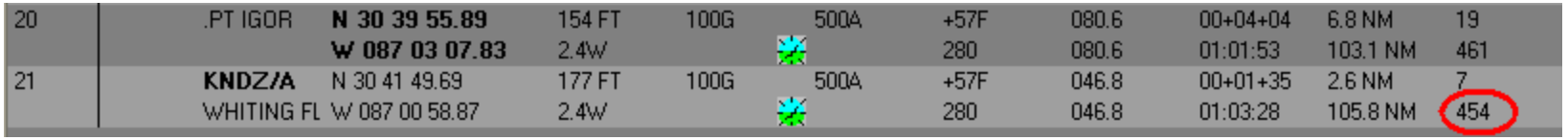
- Fuel is listed without the decimal point (e.g. 550=55.0 gallons)
- Default fuel is 750 (75.0 gallons)
- Once route is completed press the “Calculate” button to determine fuel burn



Calculate Button

Fuel Calculations (cont'd)

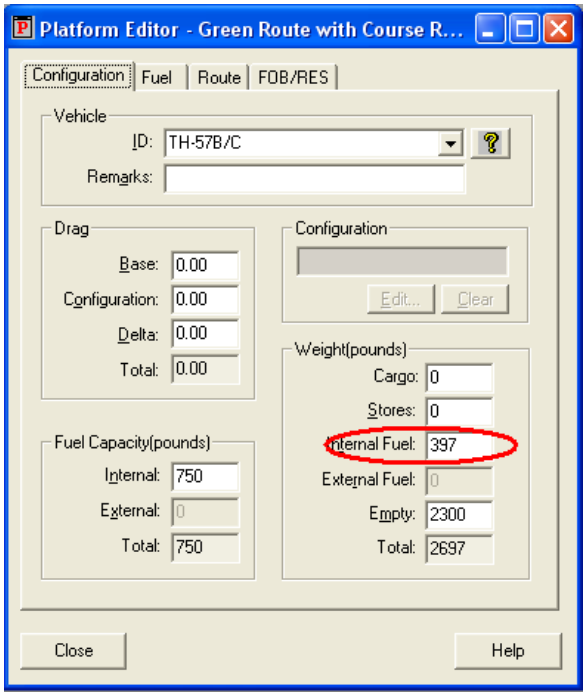
- Go-No-Go Fuel
  - Determine fuel remaining at the completion of the route



20		.PT IGOR	**N 30 39 55.89**	154 FT	100G		500A	+57F	080.6	00+04+04	6.8 NM	19
			W 087 03 07.83	2.4W				280	080.6	01:01:53	103.1 NM	461
21		**KNDZ/A**	N 30 41 49.69	177 FT	100G		500A	+57F	046.8	00+01+35	2.6 NM	7
		WHITING FL	W 087 00 58.87	2.4W				280	046.8	01:03:28	105.8 NM	454

Fuel Calculations (cont'd)

- Adjust "Internal Fuel" in "Platform Editor" to make fuel remaining at the end of the route = 101 (minimum fuel
  - 100 = 10.0 = NATOPS limit
- Go-No-Go fuel will be the amount of "Internal Fuel" that yields minimum fuel
- Round up to the nearest gallon
  - 451 = 45.1 = 46 gallons



20	.PT IGOR	**N 30 39 55.89**	154 FT	100G		500A	+57F	080.6	00+04+04	6.8 NM	19
		W 087 03 07.83	2.4W				280	080.6	01:01:53	103.1 NM	108
21	**KNDZ/A**	N 30 41 49.69	177 FT	100G		500A	+57F	046.8	00+01+35	2.6 NM	7
	WHITING FL	W 087 00 58.87	2.4W				280	046.8	01:03:28	105.8 NM	101

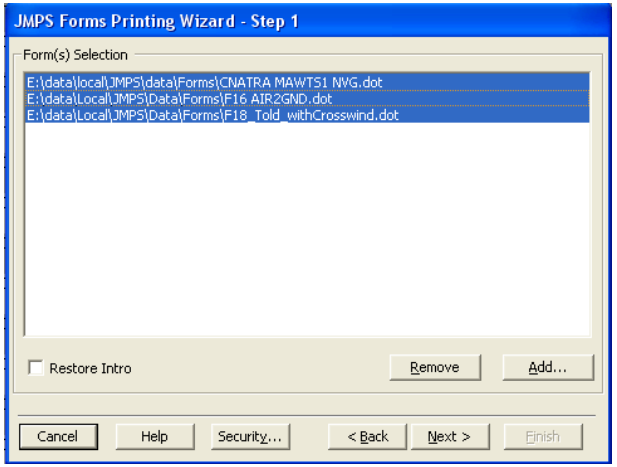
Fuel Calculations (cont'd)

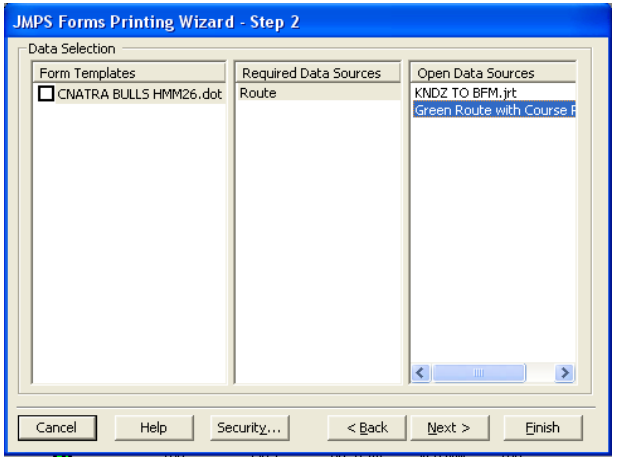
- BINGO fuel
  - May calculate with JOGAIR and approximation using
    - 30# / hr
    - 115KIAS

    or
  - Plan a new route with JMPS from the furthest point in the route back to NDZ via Course Rules
    - Use the procedures outline to adjust "Internal Fuel" to yield 101 at the end of the route
    - This number in "Internal Fuel" is BINGO fuel
    - 191 = 19.1 = 20 gallons

Printing Route Cards

- Click “File” then “Print”
- A box with different format choices will pop up
- Remove all by highlighting and pressing “Remove”
- Select specific format by clicking “add”
  - Low Level Format: CNATRA BULLS HMM26.dot
  - NVG Format: CNATRA MAWTS1 NVG.dot
- Click “Next”
- Ensure the proper route is highlighted in the next window, JMPS will default to printing the first
- Select “Finish”
- **Computer will now appear to be self-destructing, wait and be patient**





Understanding the Route Cards

- Route Cards will open in Microsoft Word once you press print in JMPS
- The Route cards in Word will change to not include the dates once you print from Word
- Print two copies
  - One for you
  - One for instructor

Understanding the Route Cards

- Route Time (e.x. CP1-CP10) =

  Time elapsed by CP1 – Time elapsed by CP10

7	315	00+01+57	9	N 30 52 04.728
.CP 1	2.9	00+46+39		W 087 19 22.678
MCDAVID	90G	00:11:57	318	16R DV 69125 15016

16	086	00+04+15	20	N 30 40 49.545
.CP 10	6.4	00+12+52		W 087 21 03.556
29/196	90G	00:45:44	161	16R DU 66381 94239

Doghouses

	HEAD	LEG TIME	LEG	LAT
CHECKPOINT	DIST	REM TIME		LONG
	A/S	ACT TIME	REM	GRID
8	261	00+03+59	19	N 30 50 56.775
.CP 2	6.0	00+42+40		W 087 26 11.482
ROAD JUNC	90G	00:15:56	300	16R DV 58261 12961
9	304	00+02+50	13	N 30 53 12.681
.CP 3	4.2	00+39+51		W 087 30 21.782
RAIL/ROAD	90G	00:18:45	286	16R DV 51632 17172